discoveries; and so long as the apparent ecliptic approaches the equator, the the moon's orbit must approach it also. The fixed ecliptic has, therefore, no more to do with the problem than has the plane of Jupiter's orbit.

Lastly, in regard to the secular inequality, I would say that I have never before attempted a thorough investigation of that subject. It is true, however, that some fifteen years ago I published a pamphlet in which I attempted to show that the new terms found by Mr. Adams, had no existence; and as yet I have seen no reason to change the views there expressed in regard to that matter.

In general, we may say that small secular equations of the elements of both, planets and moon, are produced by the large periodic inequalities to which these bodies are subjected; but for a large periodic inequality to be produced from a small secular inequality, is inconsistent with both reason and correct calculation. And from whatever point of view we approach the subject, it becomes more and more apparent that our lunar tables in use at present are based on very defective theories; and the only wonder is, that they can be made to represent the moon's motion as well as they do. I can, therefore, as yet, see no reason for recalling or modifying my statement that our present lunar tables are really erroneous by some of the smaller terms of the *third order*, instead of being correct to terms of the *seventh order* as has heretofore been supposed.

[*Correct'n.*—In the foregoing paper, for μ read u, except in first parentheses of line 4, p. 85.]

NOTE BY THE EDITOR. — At the time Prof. Wood's article on Limits (see p. 80) was put in type, we had not seen Newcomb's Algebra to which reference is there made. As it seemed improbable that Professor Newcomb would pursue the line of argument there attributed to him, we have since procured a copy of the Algebra alluded to and find that Prof. Wood has (unintentionally no doubt) misrepresented Prof. Newcomb's argument. As stated by Prof. Newcomb, the argument is entirely legitimate and the conclusion is *unquestionably correct.* The argument, as stated by Prof. Newcomb, is as follows:—

"Suppose AB to be a line of given length. Let us go one-half the dist. from A to B at one step, one-fourth at the second, one-eighth at the third, etc. It is evident that, at each step, we go half the distance which remains. Hence the two principles just cited apply to this case. That is,

"1. We can never reach B by a series of such steps, because we shall always have a distance equal to the last step left.

"2. But we can come as near as we please, because every step carries us over half the remaining distance."